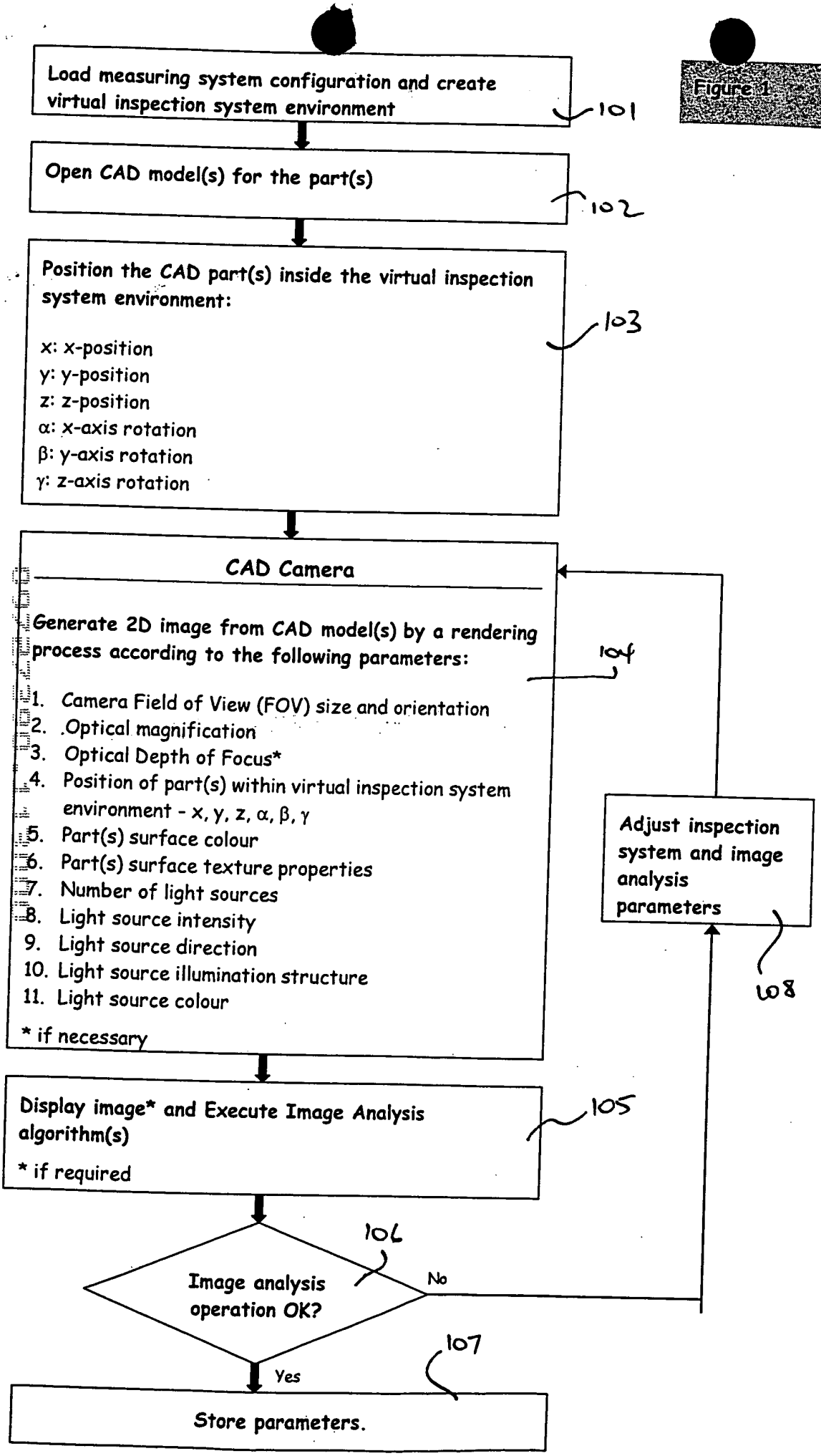
Figure 1


Load measuring system configuration and create virtual inspection system environment
101
Open CAD model(s) for the part(s)
102
Position the CAD part(s) inside the virtual inspection system environment:
x: x-position
y: y-position
z: z-position
α: x-axis rotation
β: y-axis rotation
γ: z-axis rotation
103
CAD Camera
Generate 2D image from CAD model(s) by a rendering process according to the following parameters:
104
1. Camera Field of View (FOV) size and orientation
2. .Optical magnification
3. Optical Depth of Focus*
4. Position of part(s) within virtual inspection system environment - x, y, z, α, β, γ
5. Part(s) surface colour
6. Part(s) surface texture properties
7. Number of light sources
8. Light source intensity
9. Light source direction
10. Light source illumination structure
11. Light source colour
* if necessary
Adjust inspection system and image analysis parameters
108
Display image* and Execute Image Analysis algorithm(s)
* if required
105
Image analysis operation OK?
106
No
Yes
107
Store parameters.

0002FF 062202

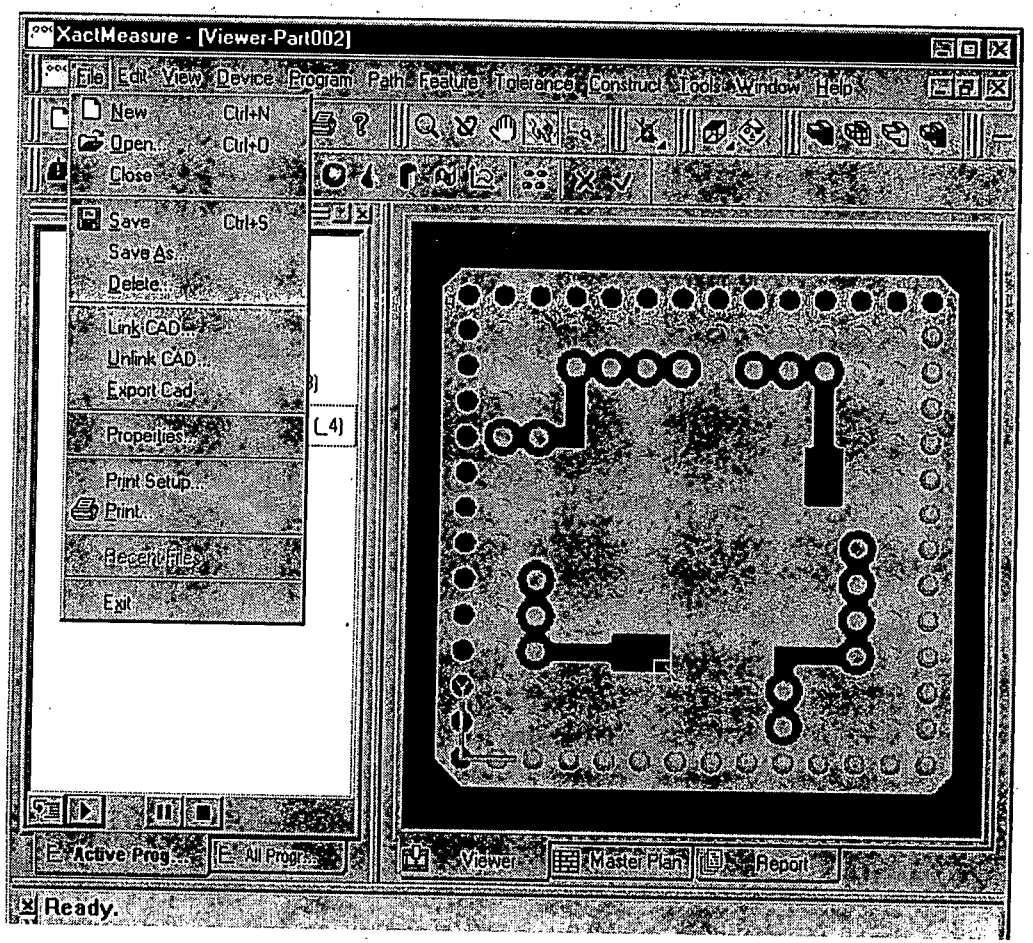



Figure 2

Transmitted
Properties
Illumination
Edge Probe
Transmitted

Figure 3

docket 06250




Figure 4

0005FF"06E7E760

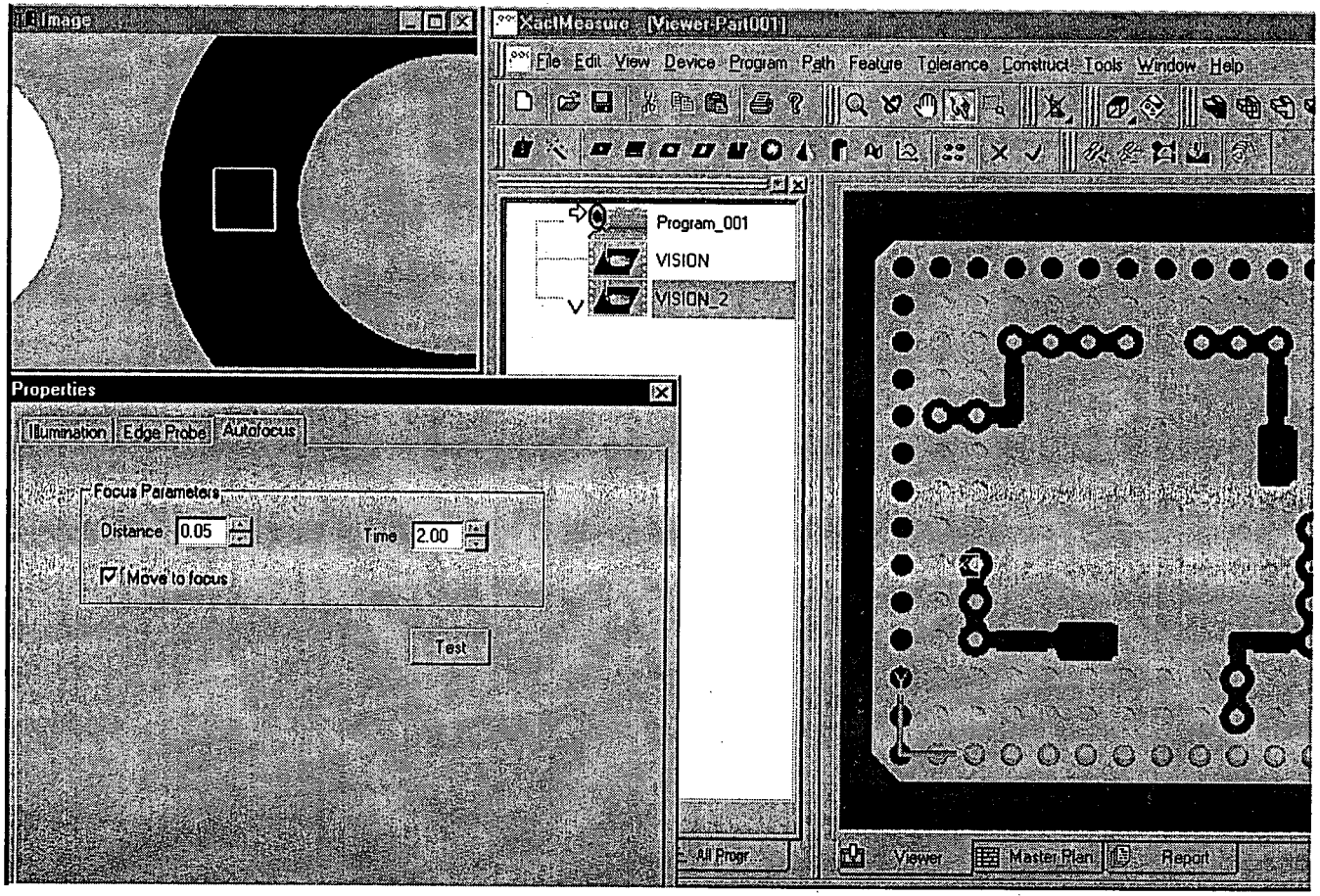



Figure 5

0006FF.0672760

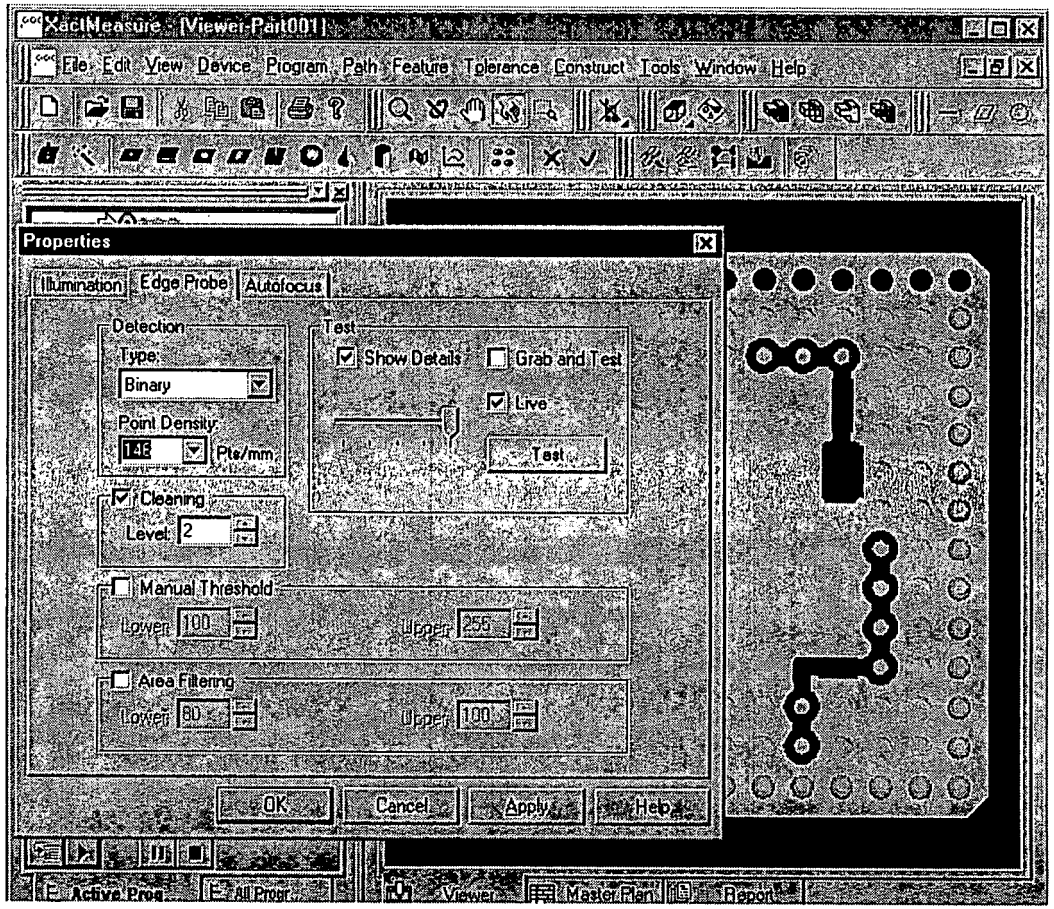



Figure 6

0006TF"0662260

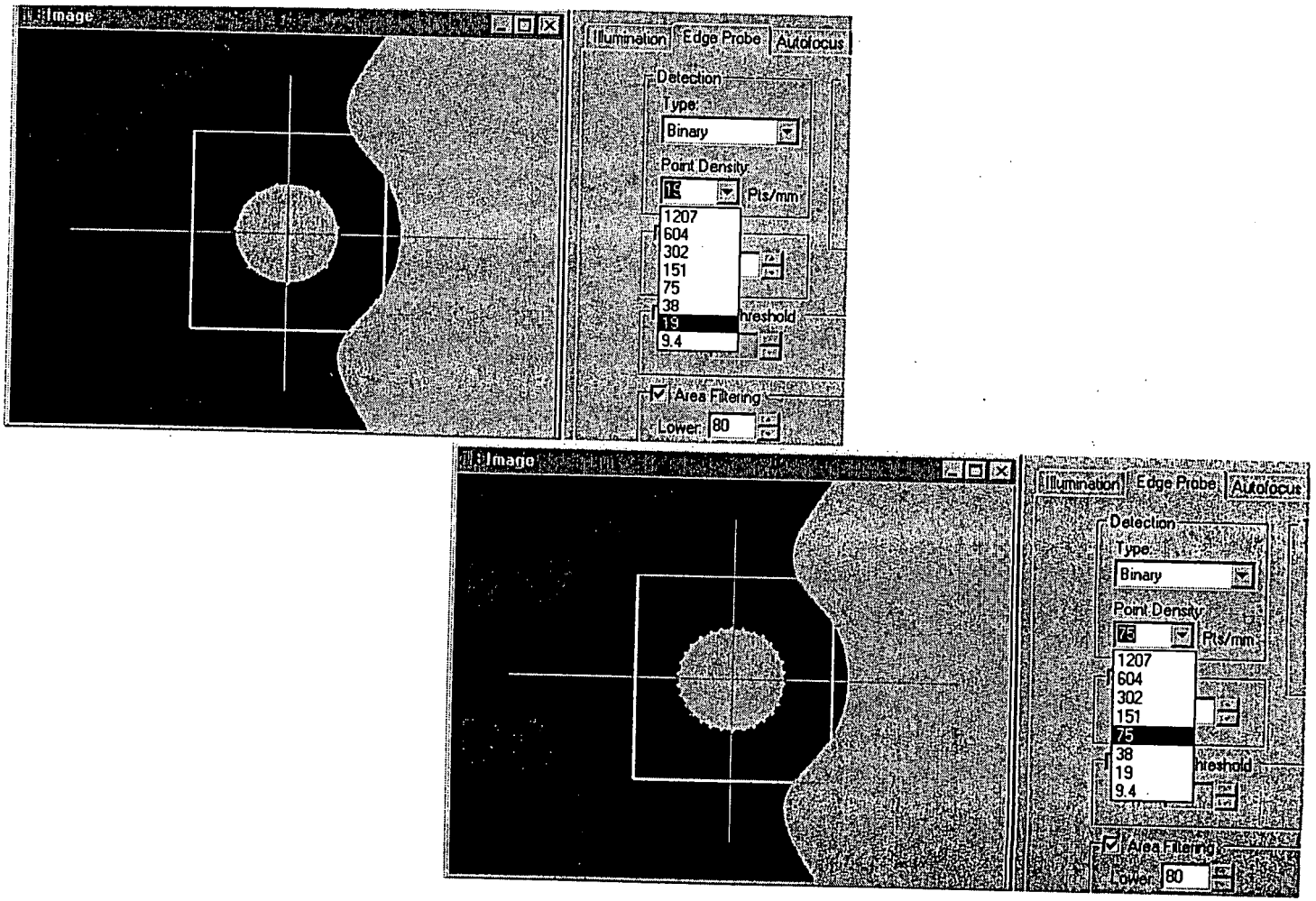



Figure 7

GOOGLE 06628260

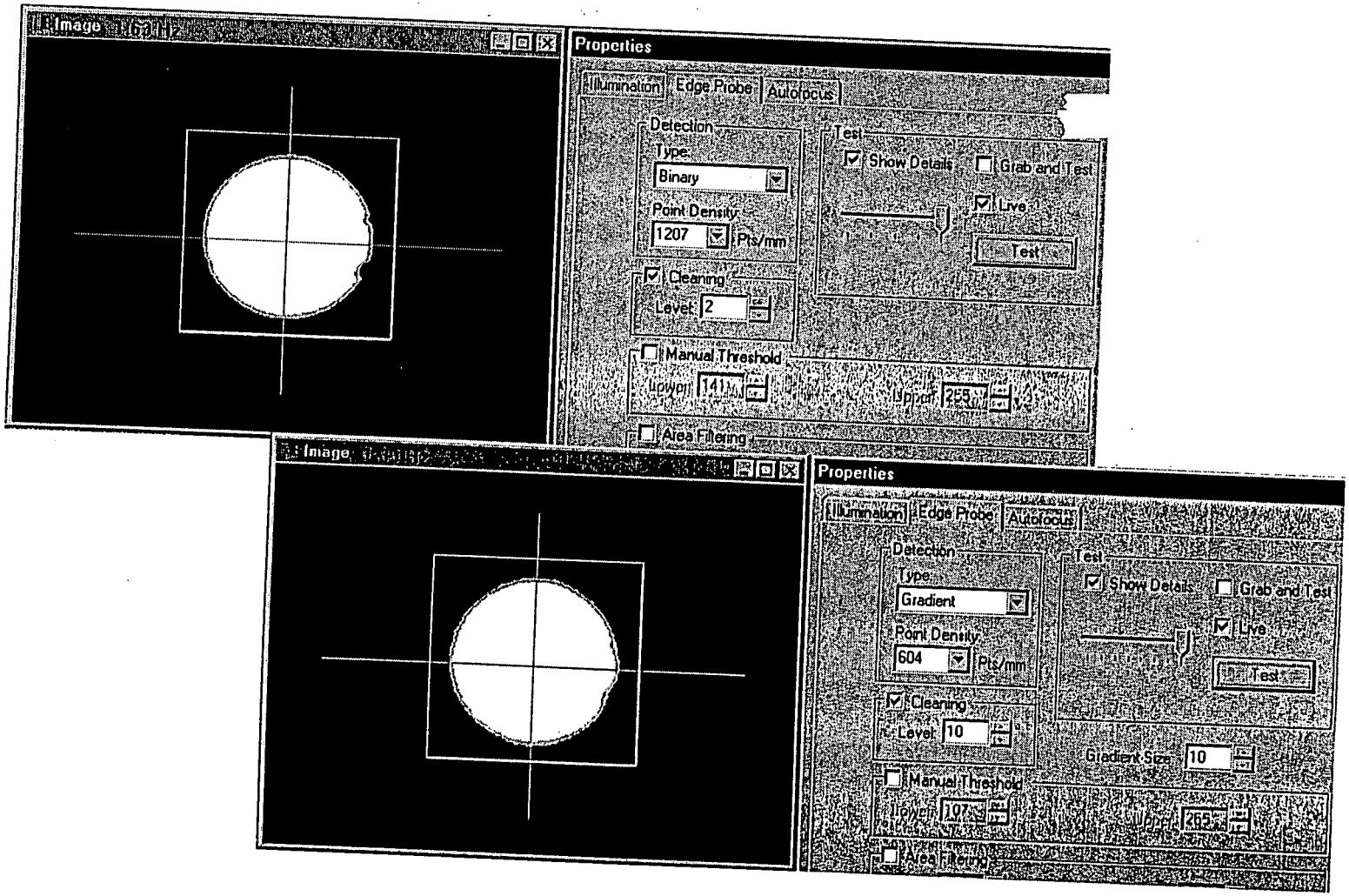



Figure 8

0002E1T* 06272760

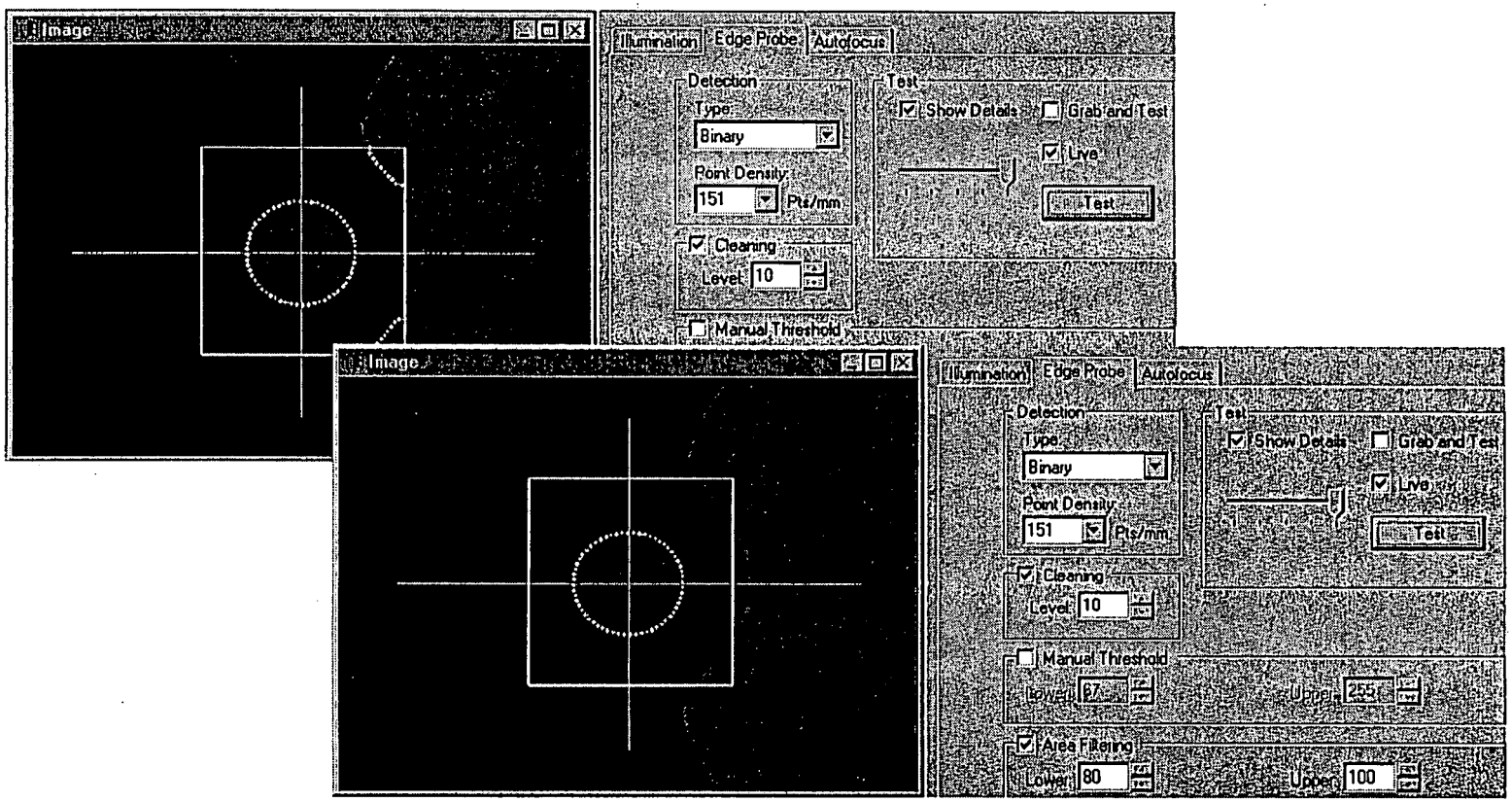



Figure 9

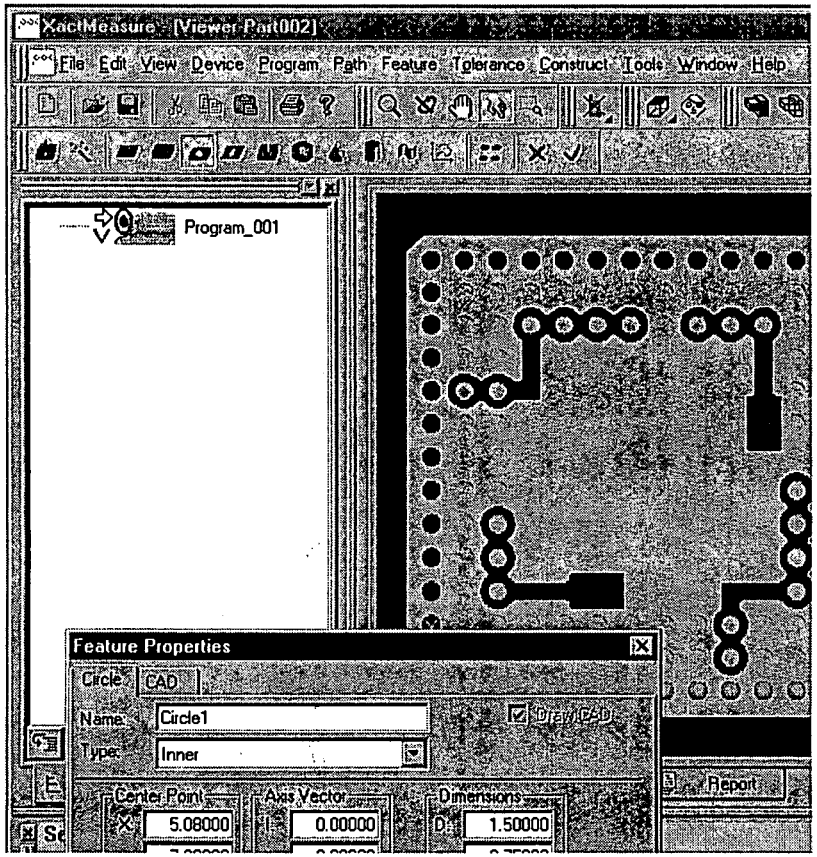

XactMeasure - [Viewer Part002]
File Edit View Device Program Path Feature Tolerance Construct Tools Window Help
Program_001
Feature Properties
Circle
CAD
Name:
Circle1
Draw CAD
Type:
Inner
Center Point
Axis Vector
Dimensions
5.08000
0.00000
D:
1.50000
Report

Figure 10

0096TF"0627260

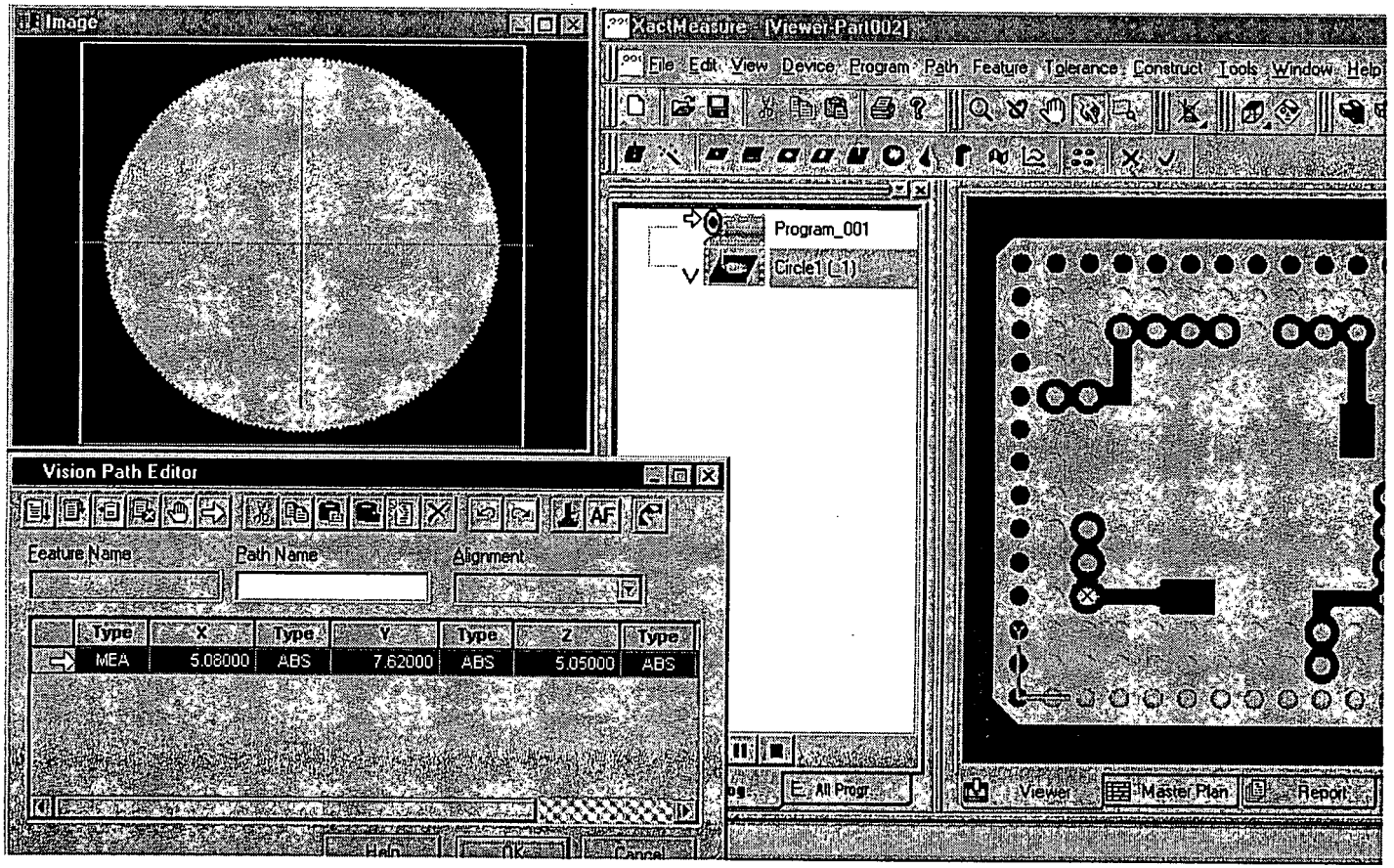



Figure 11

0006FF06E2E260

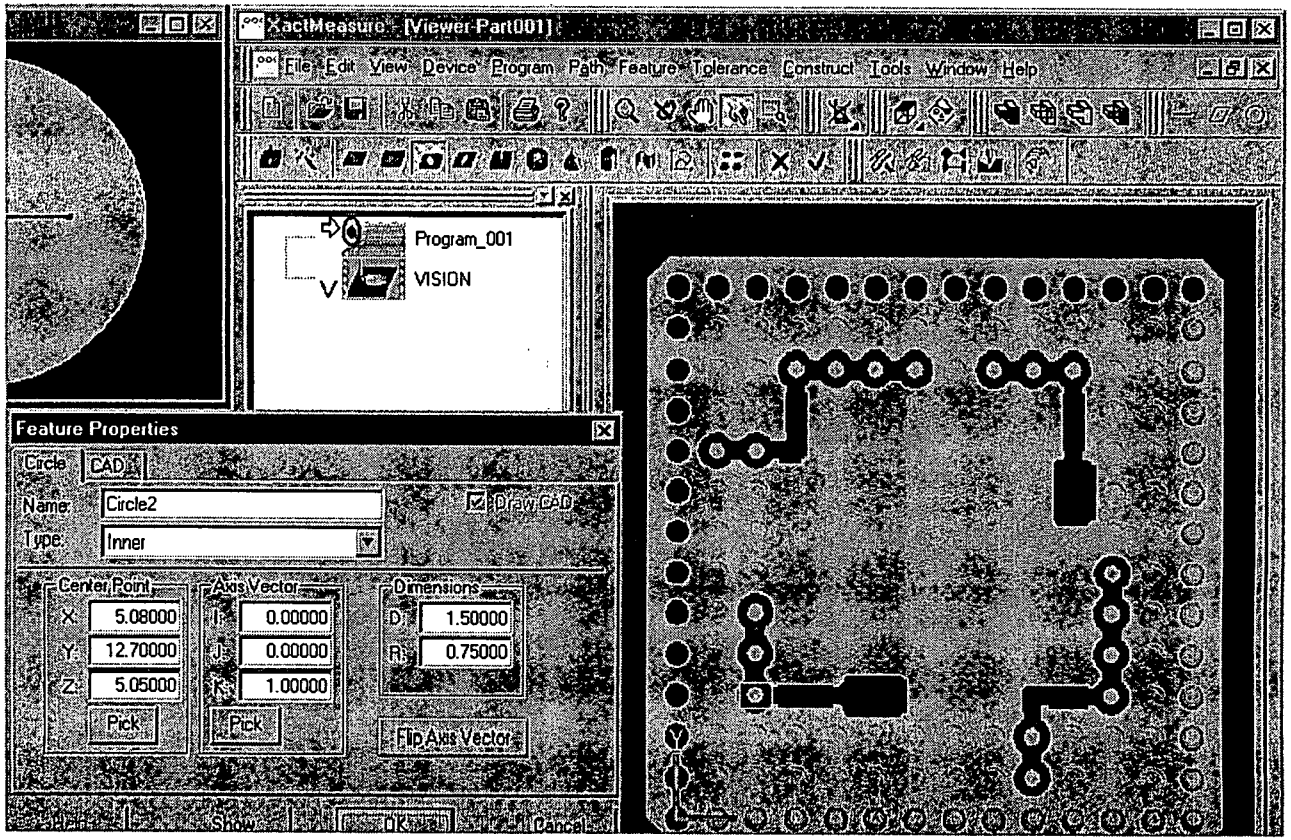



Figure 12

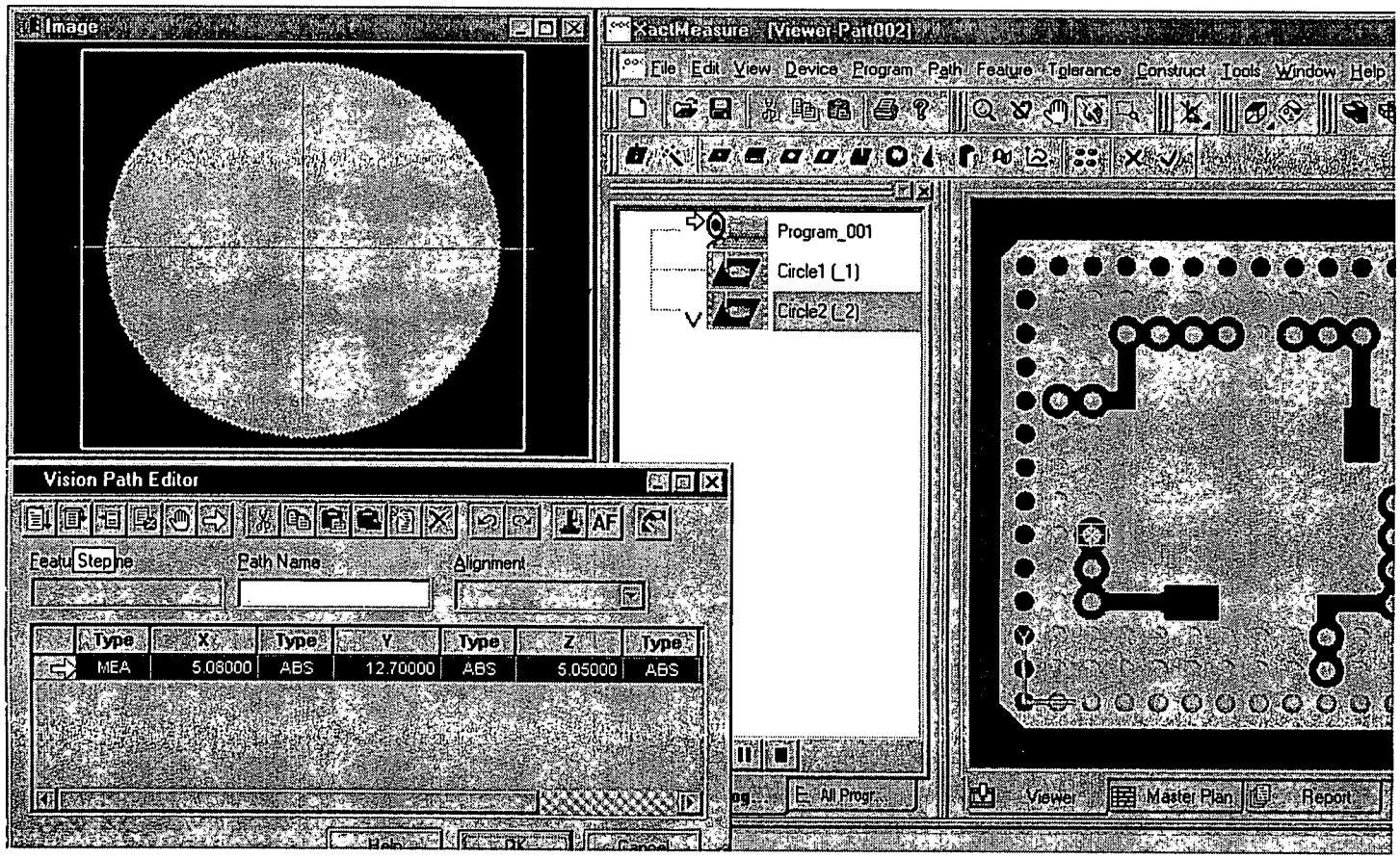


Image
XactMeasure [Viewer Part002]
File Edit View Device Program Path Feature Tolerance Construct Tools Window Help
Program_001
Circle1 (_1)
Circle2 (_2)
Vision Path Editor
Feature Step
Path Name
Alignment
Type X Type Y Type Z Type
MEA 5.08000 ABS 12.70000 ABS 5.05000 ABS
All Progr...
Viewer
Master Plan
Report

Figure 13

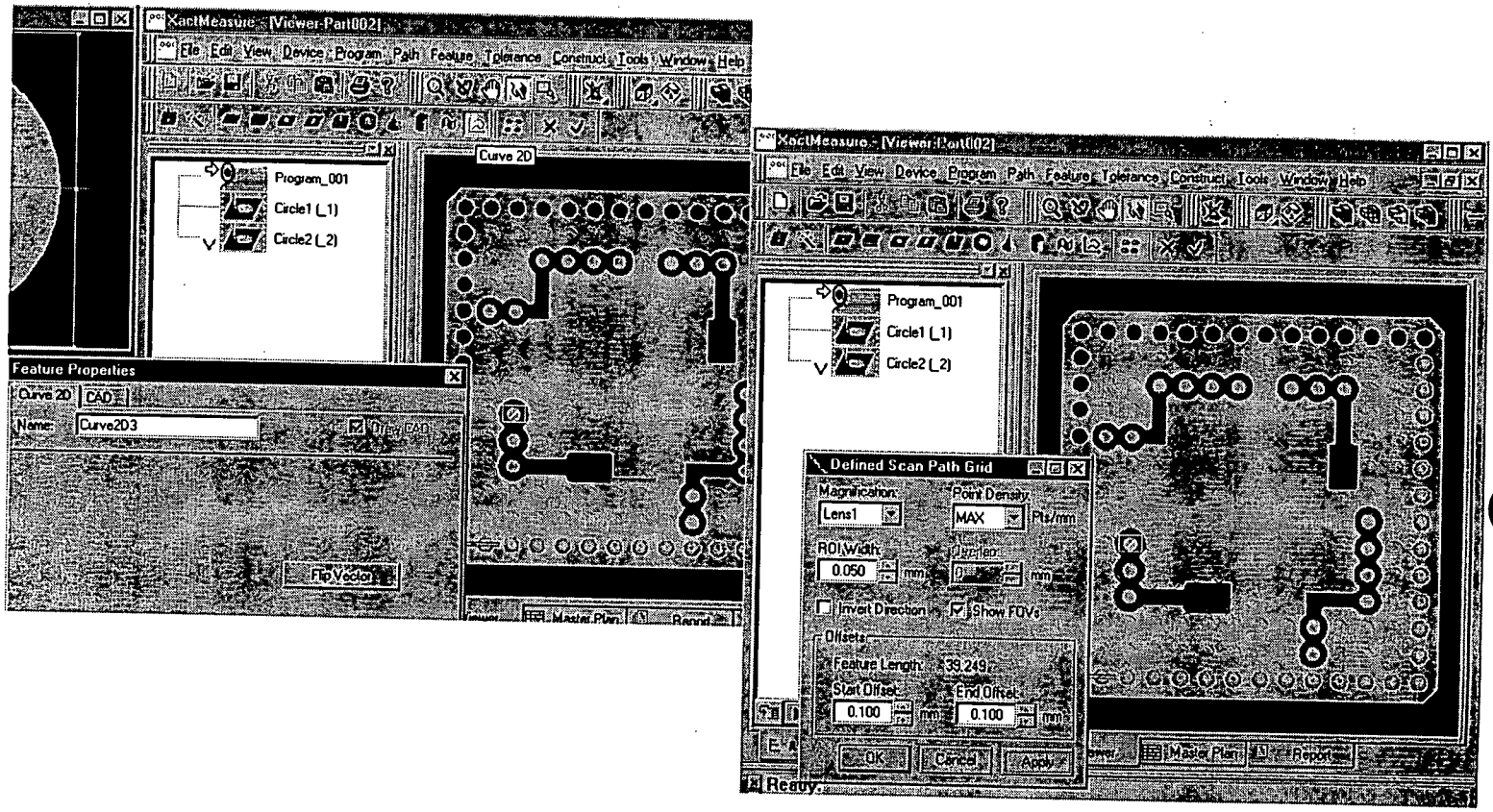

XactMeasure - [Viewer:Part002]
File Edit View Device Program Path Feature Tolerance Construct Tools Window Help
Curve 2D
Program_001
Circle1 (_1)
Circle2 (_2)
Feature Properties
Curve 2D CAD
Name: Curve2D3
Flip Vector
Defined Scan Path Grid
Magnification:
Lens1
Point Density:
MAX
Pts/mm
ROI Width:
0.050
mm
Invert Direction
Show FOVs
Offsets
Feature Length: 39.249
Start Offset:
0.100
End Offset:
0.100
OK
Cancel
Apply
Master Plan
Report
Ready

Figure 14

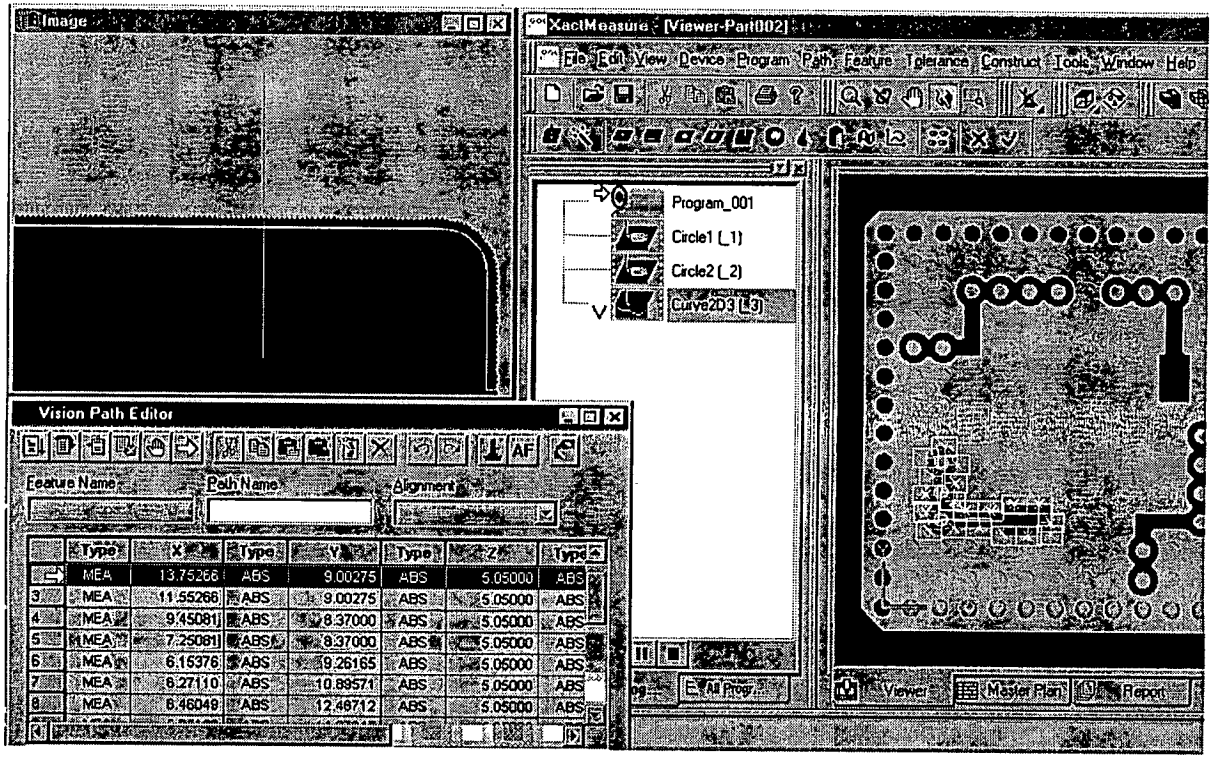


Image
XactMeasure - [Viewer-Part002]
File Edit View Device Program Path Feature Tolerance Construct Tools Window Help
Program_001
Circle1 (_1)
Circle2 (_2)
Curve2D3 (_3)
Vision Path Editor
Feature Name
Path Name
Alignment
Type X Type Y Type Z Type
MEA 13.75266 ABS 9.00275 ABS 5.05000 ABS
MEA 11.55266 ABS 9.00275 ABS 5.05000 ABS
MEA 9.45081 ABS 8.37000 ABS 5.05000 ABS
MEA 7.25081 ABS 8.37000 ABS 5.05000 ABS
MEA 6.15376 ABS 9.26165 ABS 5.05000 ABS
MEA 6.27110 ABS 10.89571 ABS 5.05000 ABS
MEA 6.46049 ABS 12.46712 ABS 5.05000 ABS
All Prog
Viewer
Master Plan
Report

Figure 15

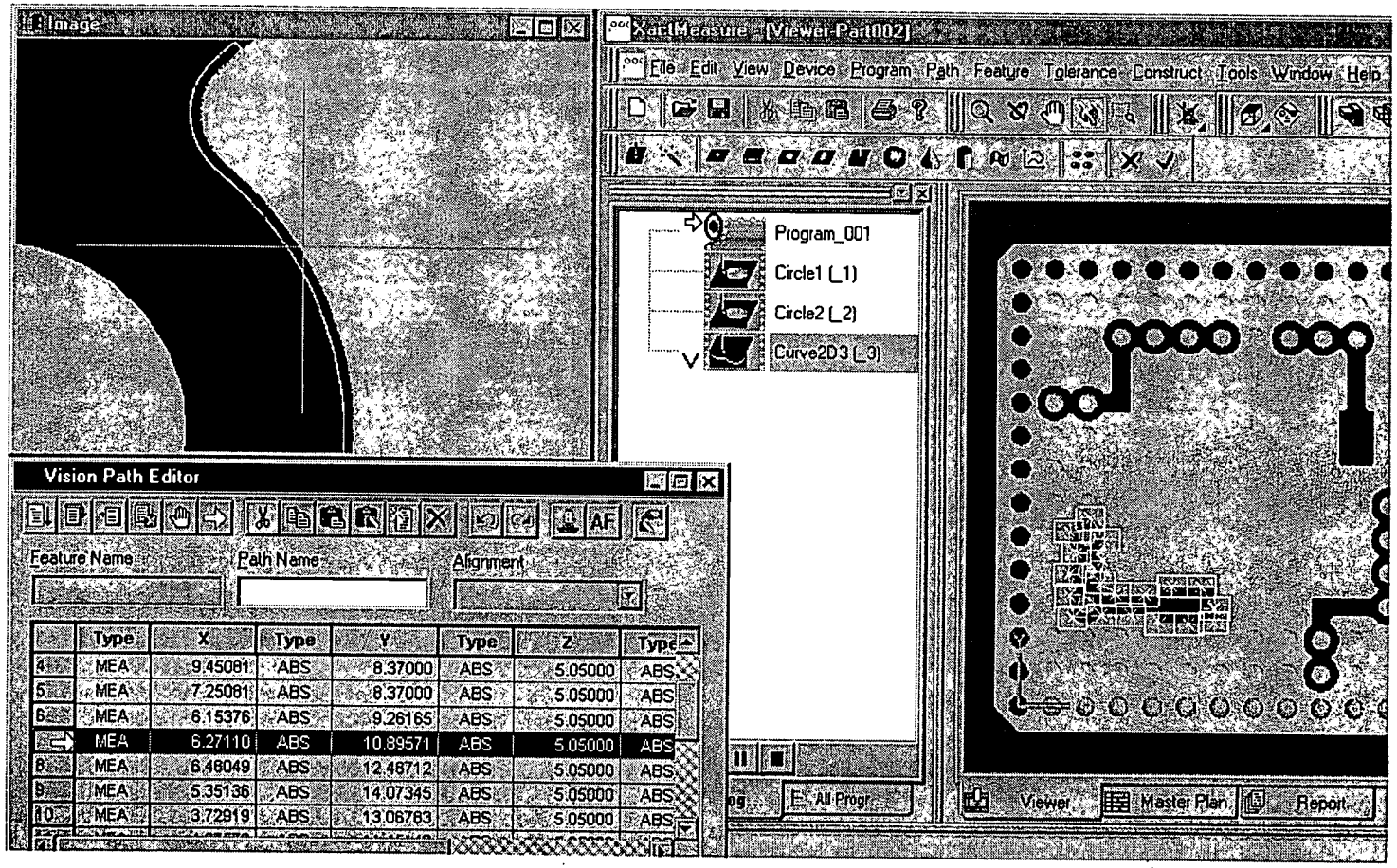


Image
XactMeasure - [Viewer Part002]
File Edit View Device Program Path Feature Tolerance Construct Tools Window Help
Program_001
Circle1 (_1)
Circle2 (_2)
Curve2D3 (_3)
Vision Path Editor
Feature Name
Path Name
Alignment
AF
Type X Type Y Type Z Type
4 MEA 9.45081 ABS 8.37000 ABS 5.05000 ABS
5 MEA 7.25081 ABS 8.37000 ABS 5.05000 ABS
6 MEA 6.15376 ABS 9.26165 ABS 5.05000 ABS
MEA 6.27110 ABS 10.89571 ABS 5.05000 ABS
8 MEA 6.48049 ABS 12.48712 ABS 5.05000 ABS
9 MEA 5.35136 ABS 14.07345 ABS 5.05000 ABS
10 MEA 3.72919 ABS 13.06783 ABS 5.05000 ABS
All Progr
Viewer
Master Plan
Report

Figure 16

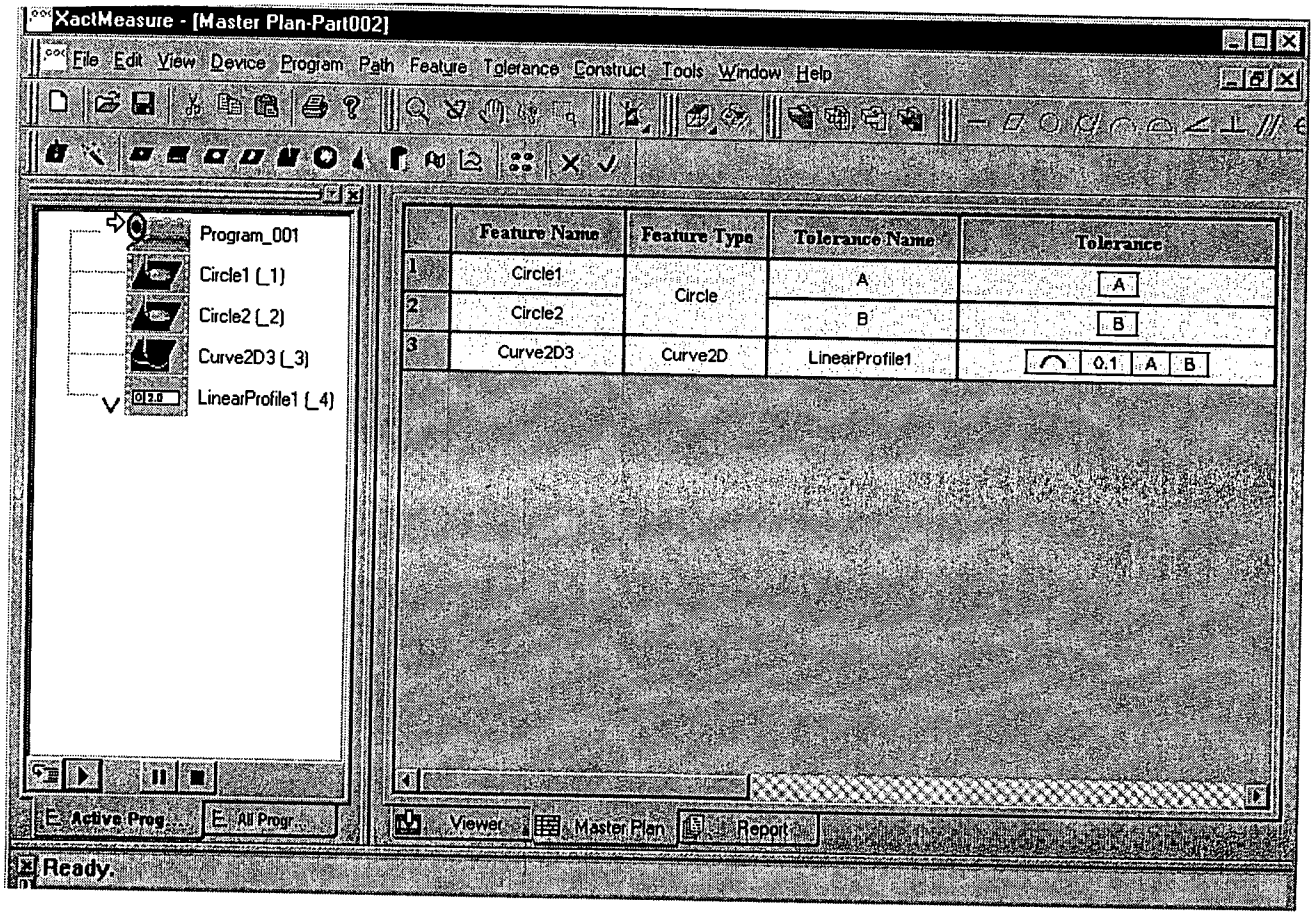

XactMeasure - [Master Plan-Part002]
File Edit View Device Program Path Feature Tolerance Construct Tools Window Help
Program_001
Circle1 (_1)
Circle2 (_2)
Curve2D3 (_3)
LinearProfile1 (_4)
Active Prog
All Progr
Feature Name
Feature Type
Tolerance Name
Tolerance
1
Circle1
Circle
A
A
2
Circle2
B
B
3
Curve2D3
Curve2D
LinearProfile1
0.1 A B
Viewer
Master Plan
Report
Ready.

Figure 17

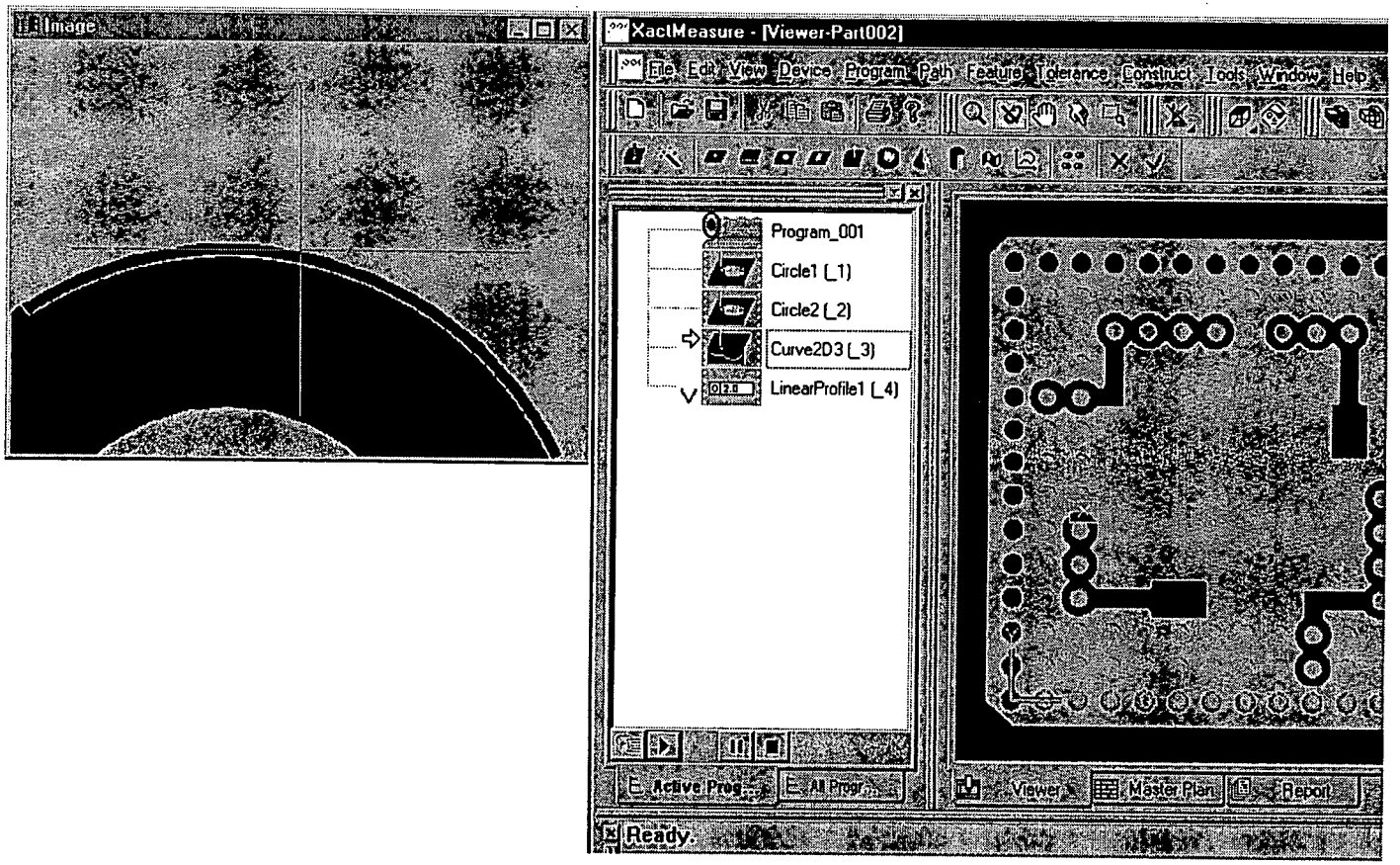


Image
XactMeasure - [Viewer-Part002]
File Edit View Device Program Path Feature Tolerance Construct Tools Window Help
Program_001
Circle1 (_1)
Circle2 (_2)
Curve2D3 (_3)
LinearProfile1 (_4)
Active Prog...
All Progr...
Viewer
Master Plan
Report
Ready.

Figure 18